

BEFORE THE  
POLLUTION CONTROL HEARINGS BOARD  
STATE OF WASHINGTON

IN THE MATTER OF  
VICTOR R. FRANZ, JOHN DEWALD  
and ARTHUR KULM,

Appellants,

v.

STATE OF WASHINGTON,  
DEPARTMENT OF ECOLOGY,

Respondent.

PCHB Nos. 558, 605, 611 and 661

FINAL FINDINGS OF FACT,  
CONCLUSIONS OF LAW  
AND ORDER

THESE MATTERS being the consolidated above-numbered requests for an appeal from respondent's decision to limit appellants' use of ground water for irrigation purposes to a period from April 1 to October 31, each year; having come on regularly for hearing before the Pollution Control Hearings Board on the 28th day of August, 1974, at Spokane, Washington; and appellants, Victor R. Franz, John Dewald and Arthur Kulm, appearing through their attorney, Leonard F. Jansen and respondent, Department of Ecology, appearing through Wick Dufford, assistant attorney general; and Gayer Dominick, hearing examiner, being present at the hearing

1 and the Board having read the transcript of the proceedings, exhibits,  
2 records and files herein and arguments of counsel and having entered on  
3 the 13th day of November, 1974, its proposed Findings of Fact, Conclusions  
4 of Law and Order, and the Board having served said proposed Findings,  
5 Conclusions and Order upon all parties herein by certified mail, return  
6 receipt requested and twenty days having elapsed from said service; and

7 The Board having received exceptions to said proposed Findings,  
8 Conclusions and Order from appellants, and having considered same and  
9 denied appellants' exceptions; and the Board being fully advised in  
10 the premises; now therefore,

11 IT IS HEREBY ORDERED, ADJUDGED AND DECREED that said proposed  
12 Findings of Fact, Conclusions and Order, dated the 13th day of November,  
13 1974, and incorporated by this reference herein and attached hereto as  
14 Exhibit A, are adopted and hereby entered as the Board's Final Findings  
15 of Fact, Conclusions and Order herein.

16 DONE at Lacey, Washington, this 10th day of February, 1975.

17 POLLUTION CONTROL HEARINGS BOARD

18   
19 CHRIS SMITH, Chairman

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22 WALT WOODWARD, Member

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26 FINAL FINDINGS OF FACT,  
27 CONCLUSIONS OF LAW  
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BEFORE THE  
POLLUTION CONTROL HEARINGS BOARD  
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IN THE MATTER OF  
VICTOR R. FRANZ, JOHN DEWALD  
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FINDINGS OF FACT,  
CONCLUSIONS OF LAW AND ORDER

A formal hearing on the consolidated above-numbered requests for an appeal from Respondent's decision to limit Appellants' use of ground water for irrigation purposes to a period from April 1 to October 31, each year, was held on August 28, 1974 in Spokane, Washington before Gayer Dominick, presiding officer and hearing examiner of the Pollution Control Hearings Board.

Appellants appeared through Leonard F. Jansen, attorney at law; Respondent appeared through its attorney, Wick Dufford, assistant

EXHIBIT A

1 attorney general.

2 Having reviewed the transcript of the proceedings and having  
3 considered the testimony, exhibits and arguments of counsel, and being  
4 fully advised, the Board makes and enters these

5 FINDINGS OF FACT

6 I.

7 The Appellants are all wheat farmers in an area known as the Odessa  
8 Subarea located in Adams County, Washington. The Odessa Subarea has been  
9 determined to be one of the most critical ground water short areas in the  
10 State of Washington. The Odessa Subarea additionally enjoys a relatively  
11 small annual rainfall. The average annual rainfall is approximately eight  
12 inches, falling almost entirely in the winter months.

13 II.

14 The Appellant-Applicants are primarily wheat farmers although there  
15 is the apparent intent by some to occasionally plant crops of shallow-  
16 rooted varieties. Wheat is a deep-rooted crop.

17 III.

18 The soils in which wheat is primarily grown in the Odessa Subarea  
19 are Shano and Ritzville silt loams. With these soil conditions prime  
20 wheat growth occurs when the wheat plant is able to assimilate between  
21 19 and 21 inches of water per year. Thus, prime wheat growth requires,  
22 in addition to the annual rainfall of eight inches, approximately 12  
23 additional inches by ground water sources.

24 IV.

25 The method of ground water irrigation used in the Odessa Subarea is  
26 approximately 70 percent efficient. Therefore, approximately 17 inches

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CONCLUSIONS OF LAW AND ORDER

of water by irrigation is necessary for prime wheat growth.

#### V.

The application of more than 17 inches of irrigation water in an average year would result in waste and leeching (the process by which fertilizer sinks below its useful level in the soil) because the Odessa Subarea soils have a storage capacity of only 20 to 21 inches. Water applied in excess of this storage capacity cannot be utilized by the wheat crop because it either would run off or sink past the roots of the wheat plant and begin the slow return to the substrata aquifer from which it came.

#### VI.

Ground water irrigation in the Odessa Subarea occurs primarily in the seven month period between April 1 and October 31, each year. However, ground water irrigation does occur in other months of the year. The application of irrigation water in the Odessa Subarea appears to be a function of available time, money and weather. In those years when labor and equipment are unavailable for complete irrigation between the months of April 1 and October 31 and in those years when rainfall is less than normal, some Odessa Subarea wheat farmers have irrigated in other months as well. However, complete irrigation can be completed in seven months.

#### VII.

Any irrigation from ground water sources during the winter months is dependent upon temperature. Irrigation upon frozen ground results in runoff, and, thus, waste.

#### VIII.

A better utilization of manpower and equipment results when the irrigation season is spread out over a longer period of time. Thus,

1 wheat farmers of the Odessa Subarea may make a better use of their  
2 financial resources if allowed to irrigate for a 12-month period as  
3 opposed to the seven month period proposed by the Department of Ecology.

4 IX.

5 Prior to 1967 the Department of Ecology and its predecessor  
6 departments authorized ground water withdrawal for irrigation purposes  
7 during "an irrigation season". "Irrigation season" was interpreted  
8 administratively to reflect a given period of time, such time varying  
9 from region to region depending upon the custom, usage, and needs of  
10 such area.

11 X.

12 In 1967, recognizing the development of a critical ground water  
13 shortage in the Odessa Subarea, the Department of Ecology established  
14 moratorium whereby applications for new ground water usages in a given  
15 area were held in abeyance, subject to water availability studies.

16 XI.

17 The U. S. Geological Survey Ground Water Resource Branch in Tacoma,  
18 Washington completed such a study in 1973 with the production of a  
19 numerical computer model depicting the ground water conditions as they  
20 exist in the Odessa Subarea. The computer model provided the Department  
21 of Ecology with information as to the quantity of water in acre feet  
22 available per square mile within the Odessa Subarea.

23 XII.

24 Using the results of the computer model and other available  
25 technical data the Department of Ecology reviewed the applications for  
26 ground water permits that it had received since 1967 in the Odessa

27 FINDINGS OF FACT,  
CONCLUSIONS OF LAW AND ORDER

1 Subarea, reviewed crop seasons and agricultural publications and  
2 determined that wheat farmer applicants for ground water permits in the  
3 Odessa Subarea should be limited to an April 1 to October 31 irrigation  
4 season. The Department of Ecology has also limited other critical  
5 ground water shortage areas to the same irrigation season.

6 XIII.

7 The Department of Ecology did not give public notice that it was  
8 establishing an April 1 to October 31 irrigation season in the Odessa  
9 subarea.

10 XIV.

11 The Department of Ecology has recognized that the Odessa Subarea  
12 has a declining water table due to the concentration of wells and the  
13 quantities of water being withdrawn. The Department of Ecology also  
14 recognizes the need for more wells and more irrigated crops by more  
15 farmers. The Department of Ecology recognizes that the availability of  
16 water is limited.

17 XV.

18 The use of ground water for irrigation purposes in excess of that  
19 which is absolutely necessary results in waste, not because there is  
20 necessarily runoff or unusable evaporation, but because of the length  
21 of time that it takes for ground water to repercolate into the aquifer  
22 from whence it came. In the Odessa Subarea water is pumped from the  
23 ground water table approximately 400 to 500 feet below land surface.  
24 The aquifers lie below strata of basalt. Because of the porosity and  
25 permeability of the basalt, the water moves extremely slowly through  
26 the basalt, and, as a result, a great deal of time passes before the

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1 water does in fact return to the ground water table to be again available  
2 for withdrawal by wells.

3 XVI.

4 Because of the long passage of time from applications to return  
5 through the basalt to the aquifer, ground water levels will continue to  
6 decline as more users and uses tap the available supply.

7 XVII.

8 Any Conclusion of Law hereinafter recited which should be deemed a  
9 Finding of Fact is hereby adopted as such.

10 From these Findings the Pollution Control Hearings Board comes  
11 to these

12 CONCLUSIONS OF LAW

13 I.

14 RCW 90.03.290 requires the Department of Ecology to investigate a  
15 water application and determine:

- 16 1. To what beneficial use the water is to be applied;  
17 2. Will the appropriation impair existing rights, and  
18 3. Will the appropriation detrimentally affect the public welfare.

19 RCW 90.03.290 further holds that if the Department of Ecology finds  
20 that there is water available for appropriation for beneficial use, and  
21 that such appropriation will not impair existing rights or be detrimental  
22 to the public welfare, the Department shall then issue a permit stating  
23 the amount of water to which the applicant shall be entitled and the  
24 beneficial uses to which it may be applied.

25 II.

26 RCW 90.44.110 holds that no public ground waters that have been

27 FINDINGS OF FACT,  
CONCLUSIONS OF LAW AND ORDER 6



1 withdrawn shall be wasted without economical beneficial use. Irrigation  
2 is a beneficial use.

3 III.

4 Use of ground waters in the Odessa Subarea by the Appellants for  
5 irrigation purposes will not impair any existing rights of other users  
6 to such ground water.

7 IV.

8 Use of ground waters for irrigation purposes during those periods of  
9 time when the ground is frozen or is otherwise nonpermeable or saturated  
10 constitutes waste without economical beneficial use.

11 V.

12 Likewise, use of excessive ground water for irrigation purposes can  
13 constitute waste in the sense that although the water eventually returns  
14 to the aquifers, it does so at such a slow pace that the water table  
15 continues to decline to such a degree that other beneficial users are  
16 unable to provide proper irrigation for their crops.

17 VI.

18 Waste in either of the above senses is detrimental to the public  
19 welfare.

20 VII.

21 The restriction of the irrigation season from April 1 to October 31st  
22 in the Odessa Subarea is in accord with the purposes of RCW 90.03.290 and  
23 RCW 90.44.110.

24 VIII.

25 Such restrictions are reasonably protective of the public welfare.

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27 CONCLUSIONS OF LAW AND ORDER

IX.

Such restrictions do not constitute a taking of Appellants' property without due process of law.

X.

The specific applications for ground water withdrawals which are the subject matter of this review were properly amended with the restrictions imposed on the irrigation season, and in accordance with the Findings set forth herein, permits should be granted restricting the irrigation season to the April 1 to October 31st, inclusive.

XI.

Any Finding of Fact which should be deemed a Conclusion of Law is hereby adopted as such.

Therefore, the Pollution Control Hearings Board issues this

ORDER

The requests for permits to appropriate ground water for irrigation purposes by the Appellants is hereby granted, subject to the restrictions placed on Appellants' applications, restricting the use of ground water for irrigation purposes to the period of April 1 to October 31st, inclusive.

1 DONE at Lacey, Washington this 13<sup>th</sup> day of November, 1974.

2 POLLUTION CONTROL HEARINGS BOARD

3 Walt Woodward  
4 WALT WOODWARD, Chairman

5 Did not participate in this case.

6 W. A. GISSBERG, Member

7 Chris Smith  
8 CHRIS SMITH, Member

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27 FINDINGS OF FACT,  
CONCLUSIONS OF LAW AND ORDER